

**FACILITY PERMIT TO OPERATE**  
**TESORO REFINING AND MARKETING CO**

**SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

Description	ID No.	Connected To	RECLAIM Source Type	Emissions* And Requirements	Conditions
<b>Process 4: HYDROTREATING</b>					P13.1
<b>SYSTEM 5: HYDROTREATING UNIT NO. 3</b>					S13.4, S15.2, S15.3, S15.13
VESSEL, SEPARATOR, HIGH, PRESSURE, V-767, HEIGHT: 71 FT; DIAMETER: 6 FT 6 IN A/N: 346366 <u>469915</u>	D147				
DRUM, V-773, SOUR WATER, LENGTH: 26 FT 6 IN; DIAMETER: 4 FT 6 IN A/N: 346366 <u>469915</u>	D159				
DRUM, SURGE, V-774, CONDENSATE, HEIGHT: 9 FT 6 IN; DIAMETER: 3 FT 6 IN A/N: 346366 <u>469915</u>	D148				
REACTOR, V-768/769, 2 TOTAL, HEIGHT: 28 FT; DIAMETER: 7 FT A/N: 346366 <u>469915</u>	D1189				
VESSEL, SEPARATOR, LOW PRESSURE, V-770, HEIGHT: 25 FT 6 IN; DIAMETER: 4 FT 6 IN A/N: 346366 <u>469915</u>	D149				
<u>VESSEL, FILTER, AVJET, V-1507, HEIGHT: 15 FT; DIAMETER: 12 FT</u> A/N: <u>469915</u>	<u>DX</u> <u>X</u>				
<u>VESSEL, SEPARATOR, AVJET, V-1508/1509, 2 TOTAL, HEIGHT: 6 FT 9 IN; DIAMETER: 12 FT 3/4 IN</u> A/N: <u>469915</u>	<u>DX</u> <u>X</u>				

- \* (1) Denotes RECLAIM emission factor (2) Denotes RECLAIM emission rate  
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
(5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
(7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
(9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements
- \*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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ACCUMULATOR, V-771, H2S STRIPPER OVERHEAD, LENGTH: 26 FT 6 IN; DIAMETER: 2 FT 6 IN A/N: <del>346366</del> <b>469915</b>	D1191				
DRUM, CHARGE, V-1471, DIESEL, HEIGHT: 17 FT 6 IN; DIAMETER: 8 FT 6 IN A/N: <del>346366</del> <b>469915</b>	D153				
COLUMN, STRIPPER, V-1475, H2S, HEIGHT: 86 FT 6 IN; DIAMETER: 7 FT A/N: <del>346366</del> <b>469915</b>	D155				
COMPRESSOR, C-86, RECYCLE GAS A/N: <del>346366</del> <b>469915</b>	D1194				H23.4
COMPRESSOR, C-77, RECYCLE GAS A/N: <del>346366</del> <b>469915</b>	D156				H23.4
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: <del>346366</del> <b>469915</b>	D1448			<b>HAP: (10) [40CFR 63 SUBPART CC, #5A, 5-25-2001]</b>	H23.16

Description	ID No.	Connected To	RECLAIM Source Type	Emissions* And Requirements	Conditions
<b>Process 5: CATALYTIC REFORMING</b>					P13.1
<b>SYSTEM 3: CATALYTIC REFORMING UNIT NO. 2</b>					<del>S11.2</del> , S13.4, S15.2, S15.3, S31.1
REACTOR, NO. 1, V-735, HEIGHT: 14 FT; DIAMETER: 12 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D1197			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	

- \* (1) Denotes RECLAIM emission factor (2) Denotes RECLAIM emission rate  
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
(5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
(7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.)  
(9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements
- \*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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Description	ID No.	Connected To	RECLAIM Source Type	Emissions* And Requirements	Conditions
REACTOR, NO. 2, V-736, HEIGHT: 21 FT; DIAMETER: 12 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D1198			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
REACTOR, NO. 3, V-737, HEIGHT: 20 FT; DIAMETER: 12 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D1199			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
REACTOR, NO. 3B, V-738, HEIGHT: 14 FT; DIAMETER: 12 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D1200			HAP: (10) [40CFR 63 Subpart UUU, #1, 4-20-2006]	
VESSEL, SEPARATOR, V-739, REACTOR PRODUCT, LENGTH: 24 FT; DIAMETER: 9 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D197				
COLUMN, DEBUTANIZER, V-741, HEIGHT: 75 FT; DIAMETER: 7 FT A/N: <del>469959</del> <b>470283</b>	D198				
VESSEL, SEPARATOR, V-742, DEBUTANIZER PRODUCT, LENGTH: 20 FT; DIAMETER: 5 FT A/N: <del>469959</del> <b>470283</b>	D199				
COLUMN, SPLITTER, V-743, HEIGHT: 72 FT 6 IN; DIAMETER: 8 FT A/N: <del>469959</del> <b>470283</b>	D200				
VESSEL, RECEIVER, V-744, SPLITTER PRODUCT, LENGTH: 20 FT; DIAMETER: 5 FT A/N: <del>469959</del> <b>470283</b>	D201				
DRUM, HALIDE, V-746/747, 2 TOTAL, INJECTION CHEMICAL, HEIGHT: 5 FT; DIAMETER: 1 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D203				

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| * (1) Denotes RECLAIM emission factor                  | (2) Denotes RECLAIM emission rate                           |
| (3) Denotes RECLAIM concentration limit                | (4) Denotes BACT emission limit                             |
| (5)(5A)(5B) Denotes command and control emission limit | (6) Denotes air toxic control rule limit                    |
| (7) Denotes NSR applicability limit                    | (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.) |
| (9) See App B for Emission Limits                      | (10) See Section J for NESHAP/MACT requirements             |

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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<b>Description</b>	<b>ID No.</b>	<b>Connected To</b>	<b>RECLAIM Source Type</b>	<b>Emissions* And Requirements</b>	<b>Conditions</b>
TANK, PERCHLOROETHYLENE, 300 GALS; WIDTH: 4 FT; HEIGHT: 3 FT 6 IN; LENGTH: 3 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D1120				
DRUM, SURGE, V-2071, FEED PREP, HEAVY NAPHTHA, HEIGHT: 15 FT; DIAMETER: 6 FT A/N: <del>469959</del> <b>470283</b>	D1203				
VESSEL, V-2235, SULFUR GUARD BED, HEIGHT: 17 FT; DIAMETER: 6 FT <b>5 IN</b> A/N: 470283 <del>Permit to Construct Issued: 10/15/01</del>	D1501				
TOWER, FEED PREP, V-732, HEIGHT: 87 FT; DIAMETER: 13 FT A/N: 470283 <del>Permit to Construct Issued: 10/15/01</del>	D1204				
TOWER, SIDE SPLITTER, V-733, HEIGHT: 29 FT; DIAMETER: 6 FT A/N: <del>469959</del> <b>470283</b>	D1205				
POT, V-1992, SPLITTER REBOILER CONDENSATE, HEIGHT: 6 FT; DIAMETER: 3 FT A/N: <del>469959</del> <b>470283</b>	D1206				
DRUM, V-2005, SPLITTER WATER DRAW, HEIGHT: 5 FT; DIAMETER: 1 FT 6 IN A/N: <del>469959</del> <b>470283</b>	D1207				
COMPRESSOR, C-73, RECYCLE GAS, CENTRIFUGAL, (VH-504) A/N: 470283 <del>Permit to Construct Issued: 10/15/01</del>	D209				
ACCUMULATOR, V-734, FEED PREP OVERHEAD, HEIGHT: 37 FT; DIAMETER: 7 FT A/N: <del>469959</del> <b>470283</b>	D210				

- |  |   |
|--|---|
| * (1) Denotes RECLAIM emission factor                  | (2) Denotes RECLAIM emission rate                           |
| (3) Denotes RECLAIM concentration limit                | (4) Denotes BACT emission limit                             |
| (5)(5A)(5B) Denotes command and control emission limit | (6) Denotes air toxic control rule limit                    |
| (7) Denotes NSR applicability limit                    | (8)(8A)(8B) Denotes 40 CFR limit (e.g. NSPS, NESHAPS, etc.) |
| (9) See App B for Emission Limits                      | (10) See Section J for NESHAP/MACT requirements             |

\*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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<b>Description</b>	<b>ID No.</b>	<b>Connected To</b>	<b>RECLAIM Source Type</b>	<b>Emissions* And Requirements</b>	<b>Conditions</b>
FUGITIVE EMISSIONS, MISCELLANEOUS A/N: <del>469959</del> <b>470283</b>	D1451			HAP: (10) [40CFR 63 Subpart CC, #5A,6-23- 2003]	H23.5

- \* (1) Denotes RECLAIM emission factor (2) Denotes RECLAIM emission rate  
(3) Denotes RECLAIM concentration limit (4) Denotes BACT emission limit  
(5)(5A)(5B) Denotes command and control emission limit (6) Denotes air toxic control rule limit  
(7) Denotes NSR applicability limit (8)(8A)(8B) Denotes 40 CFR limit(e.g. NSPS, NESHAPS, etc.)  
(9) See App B for Emission Limits (10) See Section J for NESHAP/MACT requirements
- \*\* Refer to Section F and G of this permit to determine the monitoring, recordkeeping and reporting requirements for this device.

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The operator shall comply with the terms and conditions set forth below:

**PROCESS CONDITIONS**

P13.1 All devices under this process are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
Benzene	40CFR61, SUBPART	FF

**[40CFR 61, SUBPART FF, 12-4-2003]**

**SYSTEM CONDITIONS**

S13.4 All devices under this system are subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1123

**[RULE 1123, 12-7-1990]**

[Systems subject to this condition: Process 1, System 1, 2; Process 2, System 1, 3, 4, 6, 7, 10; Process 3, System 1, 2, 4, 5; Process 4, System 1, 3, 5, 7, 9; Process 5, System 1, 3, 5; Process 6, System 1, 3; Process 8, System 1; Process 9, System 1, 2, 3, 4; Process 12, System 5, 8; Process 19, System 3; Process 21, System 1, 2, 3, 4]

S15.2 The vent gases from all affected devices of this process/system shall be vented as follows:

This process/system shall not be operated unless the blowdown flare system is in full use and has a valid permit to receive vent gases from this system.

All emergency vent gases shall be directed to the refinery flares (process 21, system 1) or flare gas recovery system (process 21, system 4) which may also include DCU Blowdown Compressor C-137 (device D68) except Devices IDs D898, D20, D910, D1268, D1269, D1280, D93, D94, D96, D1283, D1284, D1288, D1292, D219, D226, D1212, D275, D1256, D375, D928, D1267 & D916 that vent to the atmosphere.

**[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996]**

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[Systems subject to this condition: Process 1, System 1, 2; Process 2, System 1, 3, 4, 6, 10; Process 3, System 1, 2, 5; Process 4, System 1, 3, 5, 7, 9; Process 5, System 1, 3, 5; Process 6, System 1, 3; Process 8, System 1; Process 9, System 1, 2, 3; Process 12, System 8; Process 19, System 3; Process 21, System 4]

S15.3 The vent gases from all affected devices of this process/system shall be vented as follows:

All vent gases under normal operating conditions shall be directed to a vapor recovery system (process 21, System 3) consisting of compressors, D641, D642, D643, and/or D644, which can be operated independently to maintain a system vacuum that efficiently collects all vented gases or the flare gas recovery system (Process 21, System 4).

This process/system shall not be operated unless the vapor recovery system (process 21, system 3) or flare gas recovery system (process 21, system 4) is in full use and has a valid permit to receive vent gases from this system.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996]

[Systems subject to this condition: Process 1, System 2; Process 2, System 3, 4, 6; Process 3, System 2, 4; Process 4, System 1, 3, 5, 7; Process 5, System 1, 3, 5; Process 6, System 1; Process 8, System 1; Process 9, System 2; Process 21, System 4]

S15.13 The vent gases from all affected devices of this process/system shall be vented as follows:

All sour gases under normal operating conditions shall be directed to the fuel gas treating system (Process 4, System 9) or to the scrubber located in Process 8, System 1.

This process/system shall not be operated unless the fuel gas treating system or the scrubber is in full use and has a valid permit to receive vent gases from this system.

[RULE 1303(a)(1)-BACT, 5-10-1996; RULE 1303(b)(2)-Offset, 5-10-1996]

[Systems subject to this condition: Process 4, System 1, 3, 5]

S31.1 The following BACT requirements shall apply to VOC service fugitive components associated with the devices that are covered by application number(s) 347559, 347560, 347564, 336048, 366083, 376616, 376622, 376623, 376624, 376625, 376626, 376627, 376628, 381228, 457927, 501287, & 501288:

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#### **SECTION D: FACILITY DESCRIPTION AND EQUIPMENT SPECIFIC CONDITIONS**

The operator shall comply with the terms and conditions set forth below:

All open-ended valves shall be equipped with cap, blind flange, plug, or a second valve.

All pressure relief valves shall be connected to closed vent system or equipped with rupture disc.

All process drains shall be equipped with water seal, or a closed vent system and control device complying with the requirements of 40CFR 60 Subpart QQQ.

All sampling connections shall be closed-purge, closed-loop, or closed-vent system.

All components are subject to District Rule 1173 and 40CFR 60 Subpart GGG.

All new components in VOC service as defined in Rule 1173, except valves and flanges, shall be inspected quarterly using EPA reference Method 21. All new valves and flanges in VOC service except those specifically exempted by Rule 1173 shall be inspected monthly using EPA Method 21.

All new components in VOC service, a leak greater than 500 ppm but less than 1,000 ppm measured as methane above background as measured using EPA Method 21, shall be repaired within 14 days of detention.

All new valves in VOC service shall be of leakless type, except those specifically exempted by Rule 1173 or approved by the District in the following applications: heavy liquid service, control valves, instrument piping/tubing, applications requiring torsional valve stem motion, applications where failures could pose safety hazards (e.g. drain valves with valve stems in horizontal position), retrofits with space limitations, and valves not commercially available.

If 98.0 percent or greater of the new valve and the new flange population inspected is found to leak gaseous or liquid volatile organic compounds at a rate less than 500 ppm for two consecutive months, then the operator may revert to a quarterly inspection program with approval of the executive officer. This condition does not apply to leakless valves.

The operator shall keep records of the monthly inspection (and quarterly where applicable), subsequent repair, and reinspection, in a manner approved by the District.

The operator shall provide to the District, no later than 90 days after initial startup, a recalculation of the fugitive emissions based on actual components



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The operator shall comply with the terms and conditions set forth below:

installed and removed from service. The operator shall also submit a complete, as built, piping and instrumentation diagram(s) and copies of requisition data sheets for all non-leakless type valves with a listing of tag numbers and reasons why leakless valves are not used.

For the purpose of this condition, leakless valve shall be defined as any valve equipped with sealed bellow or equivalent as approved in writing by the District prior to installation.

Components shall be defined as any valve, fitting, pump, compressor, pressure relief device, diaphragm, hatch, sight-glass, and meter, which are not exempt by Rule 1173.

**[Rule 1303(a)(1)- BACT, 5-10-1996]**

#### **DEVICE CONDITIONS**

H23.5 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1173

**[RULE 1173, 5-13-1994; RULE 1173, 2-6-2009]**

[Devices subject to this condition: D1354, D1355, D1357, D1359, D1361, D1362, D1363, D1366, D1367, D1384, D1399, D1415, D1416, D1419, D1425, D1443, D1444, D1451, D1454, D1459, D1460, D1461, D1465, D1466, D1467, D1469, D1470, D1471, D1472, D1473, D1477, D1553, D1556, D1557, D1561]

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The operator shall comply with the terms and conditions set forth below:

H23.4 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	40CFR60, SUBPART	GGG

[40CFR 60 Subpart GGG, 6-2-2008]

[Devices subject to this condition: D68, D140, D156, D176, D333, D377, D642, D901, D918, D1082, D1194, D1338]

H23.16 This equipment is subject to the applicable requirements of the following rules or regulations:

Contaminant	Rule	Rule/Subpart
VOC	District Rule	1173
VOC	40CFR60, SUBPART	GGG

[RULE 1173, 5-13-1994; RULE 1173, 2-6-2009; 40CFR 60 Subpart GGG, 6-2-2008]

[Devices subject to this condition: D1365, D1380, D1381, D1384, D1392, D1446, D1447, D1448, D1449, D1453, D1455, D1456, D1458, D1562]